

## CLAIMS

### What is claimed is:

1. A method for separating a molecular species of interest from a feedstream, comprising:
  - (a) filtering said feedstream by a tangential-flow filtration process through a filtration membrane having a pore size that separates said molecular species of interest from said feedstream, while maintaining flux at a level ranging from about 5 to 100% of transition point flux in the pressure-dependent region of the flux versus TMP curve, wherein transmembrane pressure is held substantially constant along the membrane at a level no greater than the transmembrane pressure at the transition point of the filtration, whereby said molecular species of interest is selectively separated from said feedstream such that said molecular species of interest retains its biological activity;
  - (b) filtering said feedstream by a microfiltration process; andwherein said molecular species of interest is a protein.
2. The method of claim 1, further comprising fractionating said feedstream.
3. The method of claim 1, further comprising clarifying said feedstream.
4. The method of claim 1, further comprising diafiltering said feedstream.
5. The method of claim 1, further comprising concentrating said feedstream.
6. The method of claim 1, wherein the species of interest has a molecular weight of about 1 to 1000 kDa.
7. The method of claim 1, wherein all filtration stages are ultrafiltrations.
8. The method of claim 1, wherein said feedstream is milk.